AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-71 (Cancelled)

72. (New) An implant for use inside a human body, comprising:

a biocompatible self-supporting base material having surfaces exposed to aggressive body cells, when the implant is implanted in the human body,

a cell barrier coating coated on said surfaces to prevent body cells from breaking down said base material,

a property improving means for improving at least one physical property of the implant other than self-supporting and cell barrier properties, wherein said property improving means comprises a core of viscoelastic material covered with said self-supporting base material, and

wherein said base material comprises a layer of polyurethane and a layer of silicone, and

said barrier coating comprises a polyparaxylylene polymer, polytetrafluoroethylene, or a biocompatible metal coating.

73. (New) The implant according to claim 72, wherein said viscoelastic material comprises silicone gel, cellulose gel or collagen gel.

74. (New) The implant according to claim 72, wherein said property improving means comprises gas contained in a multiplicity of cavities formed in said base material to improve the flexibility of said base material.

75. (New) The implant according to claim 74, wherein said cavities are defined by net structures of said base material.

76. (New) The implant according to claim 74, wherein said base material comprises polytetrafluoroethylene.

77. (New) An implant for use inside a human body, comprising:

a biocompatible self-supporting base material having surfaces exposed to aggressive body cells, when the implant is implanted in the human body, and

a cell barrier coating coated on said surfaces to prevent body cells from breaking down said base material, further comprising

a property improving means for improving at least one physical property of the implant other than self-supporting and cell barrier properties, wherein said property improving means comprises a core of viscoelastic material covered with said self-supporting base material, and

wherein said base material comprises a layer of polyurethane and a layer of silicone, and

said barrier coating comprises a polyparaxylylene polymer or a biocompatible metal coating, and wherein said base material forms an inflatable tubing.

78. (New) The implant according to claim 77, wherein said tubing has an inner surface defining the interior of said tubing, and said coating covers said inner surface.

79. (New) The implant according to claim 77, wherein said base material forms two coaxial tubular layers and said property improving means comprises a tubular intermediate layer of a viscoelastic material located between said coaxial tubular layers.

80. (New) The implant according to claim 77, wherein said viscoelastic material comprises silicone gel, cellulose gel or collagen gel.

81. (New) The implant according to claim 77, wherein said base material forms an outer tubular layer, an inner arcuate layer attached to said outer tubular layer, said outer and inner layers defining a curved space extending longitudinally along said tubing, and said property improving means comprises viscoelastic material filling said space.

82. (New) The implant according to claim 81, wherein said viscoelastic material comprises silicone gel, cellulose gel or collagen gel.

83. (New) An implant for use inside a human body, comprising:

a biocompatible self-supporting base material having surfaces exposed to aggressive body cells, when the implant is implanted in the human body, and

a cell barrier coating coated on said surfaces to prevent body cells from breaking down said base material, further comprising

a property improving means for improving at least one physical property of the implant other than self-supporting and cell barrier properties, wherein said base material forms a first layer and said property improving means comprises a second layer applied on said first layer, said second layer being more fatigue resistant than said first layer, and

wherein said base material comprises a layer of polyurethane and a layer of silicone and

said barrier coating comprises a polyparaxylylene polymer or a biocompatible metal coating.

84. (New) The implant according to claim 83, wherein said second layer comprises a polyurethane layer.

85. (New) The implant according to claim 83, wherein said first layer of said base material forms an inflatable tubing, and said second layer covers said base material within said tubing.

86. (New) An implant for use inside a human body comprising a composite structure composed of a base material making said composite structure self-supporting, and a property improving means for improving at least one physical property of said composite structure other than self-supporting properties, wherein the base material comprises a layer of polyurethane and a layer of silicone, wherein the property improving means comprises a layer applied on the base material, and wherein the layer applied on the base material is of a material different than the base material.

87. (New) The implant according to claim 86, wherein the layer of the property improving means comprises a layer applied on the base material at least along a side of the elongate composite structure, the coating having better aggressive body fluid resistant properties than the base material.

88. (New) The implant according to claim 87, wherein the base material forms an inflatable tubing.

89. (New) The implant according to claim 88, wherein the tubing has an inner surface defining the interior of the tubing, and the layer covers the inner surface.

90. (New) The implant according to claim 86, wherein the layer of the property improving means comprises a layer applied on the base material at least along a side of

the elongate composite structure, the coating having better anti-friction properties than the base material.

91. (New) The implant according to claim 87, wherein the property improving means further comprises a core of a viscoelastic material covered with the self-supporting base material.

92. (New) The implant according to claim 90, wherein the base material forms an inflatable tubing.

93. (New) The implant according to claim 92, wherein the tubing has an inner surface defining the interior of the tubing, and the coating covers the inner surface.

94. (New) The implant according to claim 86, wherein the base material forms a first layer and the layer of the property improving means comprises a second layer applied on the first layer, the second layer being more fatigue resistant than the first layer.

95. (New) The implant according to claim 94, wherein the second layer covers the first layer of the base material along a side of the elongate composite structure.

96. (New) The implant according to claim 94, wherein the second layer comprises a polyurethane layer.

97. (New) The implant according to claim 94, wherein the property improving means comprises a third layer applied on the first layer and/or the second layer, the third layer having better aggressive body fluid resistance properties and/or better anti-friction properties than the base material.

98. (New) The implant according to claim 97, wherein the third layer is a coating selected from the group consisting of polytetrafluoroethylene, polyparaxylylene, and biocompatible metal coating.

99. (New) The implant according to claim 98, wherein the biocompatible metal coating is selected from the group consisting of gold, silver and titanium.

100. (New) The implant according to claim 86, wherein the first layer of the base material forms an inflatable tubing, and the second layer covers the base material within the tubing.

101. (New) The implant according to claim 86, wherein the base material forms an inflatable tubing and the layer of the property improving means comprises a liquid impermeable layer applied on the base material.

102. (New) The implant according to claim 101, wherein the tubing has an external surface of the base material and an internal surface of the base material defining the interior of the tubing, the layer being applied on the external surface and/or internal surface.

103. (New) The implant according to claim 101, wherein the layer is a coating coated on the base material, the coating being selected from the group consisting of Parylene™ and a biocompatible metal coating.

104. (New) The implant according to claim 103, wherein the biocompatible metal coating is selected from the group consisting of gold, silver and titanium.

105. (New) The implant according to any one of claims 86, wherein hard silicone constitutes the base material.

106. (New) The implant according to claim 88, wherein the base material forms two coaxial tubular layers and the layer of the property improving means comprises a

tubular intermediate layer of a soft viscoelastic material located between the coaxial tubular layers.

107. (New) The implant according to claim 88, wherein the base material forms an outer tubular layer and an inner arcuate layer attached to the outer tubular layer, the outer and inner layers defining a curved space extending longitudinally along the tubing, and the layer of the property improving means comprises soft viscoelastic material filling the space.

108. (New) The implant according to claim 91, wherein the viscoelastic material is selected from the group consisting of silicone gel, cellulose gel, and collagen gel.

109. (New) The implant according to claim 87, wherein the layer comprises a cell barrier layer applied on the surfaces of the base material to prevent body cells from breaking down the base material.

110. (New) The implant according to claim 109, wherein the cell barrier layer is a coating coated on the surfaces of the base material, the coating being selected from the group consisting of polyparaxylylene and a biocompatible metal coating.

111. (New) The implant according to claim 110, wherein the biocompatible metal coating is selected from the group consisting of gold, silver and titanium.

112. (New) The implant according to claim 86, wherein the elongate composite structure is non-inflatable.

113. (New) The implant according to claim 112, further comprising an adjustment means adapted to mechanically adjust the non-inflatable composite structure.

114. (New) The implant according to claim 86, wherein the elongate composite structure is adapted to externally constrict the stomach or esophagus.

115. (New) The implant according to claim 86, wherein the base material forms at least one tubular layer.

116. (New) The implant according to claim 86, wherein the layer of the property improving means is applied externally on the tubular layer of the base material.

117. (New) The implant according to claim 116, wherein the layer of the property improving means is applied on the tubular layer of the base material at least along a side of the elongate composite structure.

118. (New) The implant according to claim 86, wherein the layer of the property improving means is applied internally on the tubular layer of the base material.

119. (New) The implant according to claim 86, wherein the property improving means comprises a first layer applied externally on the tubular base material and a second layer applied internally on the tubular layer of the base material.

120. (New) The implant according to claim 86, wherein the composite structure comprises an external tubular layer of the base material and an internal tubular layer of the base material extending inside of and being spaced from the external tubular layer, whereby the external and internal tubular layers define a space, the layer of the property improving means extending in the space.